



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/214,519 01/07/99 HASHIZUME

T 101850

EXAMINER

MM91/0126

OLIFF & BERRIDGE
PO BOX 19928
ALEXANDRIA VA 22320

LEBOUX, E

ART UNIT

PAPER NUMBER

2858

DATE MAILED:

01/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/214,519

Applicant(s)

Hashizume et al

Examiner
Etienne LeRoux

Group Art Unit
2858



☒ Responsive to communication(s) filed on Jan 8, 2001

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-19 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-19 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2858

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 6 - 9 (amended) are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. *5,508,034*

Regarding claims 1 and 4 (amended), Yamada et al. disclosean optical modulation element [Fig 5, #5] a transparent plate [Fig 5, #3] secured to the optical modulator a projection unit [Fig.2, #209].

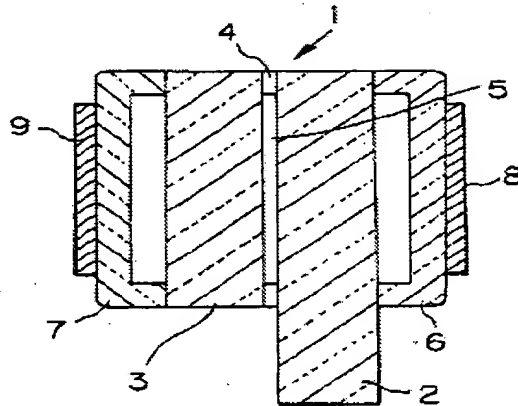
Regarding claims 2 and 9 (amended), Yamada et al. disclosea polarizer [Fig 5, #9] bonded to the transparent plate.

Regarding claim 6 (amended), Yamada et al. disclose the transparent plate [Fig 5, #3] thickness is larger than the focal length of the projection lens [Fig 2, #209].

Regarding claim 7 (amended), Yamada et al disclose the transparent plate is made of resin [Col 6, line 60].

Regarding claim 8 (amended), as best the examiner is able to ascertain, Yamada et al disclose a polarizer [Fig 5, #9] and a pair of substrates [Fig 5, #2 and #3]

Art Unit: 2858

FIG. 5

Claims 14 - 16 (amended) are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimori. *US PAT 6,007,205*

Regarding claim 14 (amended), Fujimori discloses: a plurality of optical modulation devices [Fig 12, 925R, 925G, 925B], a prism that synthesizes the light flux [Fig 11, 910], a projection unit [Fig 9, 6], a partition [Fig 12, 1500] that surrounds said plurality of optical modulation devices and said prism, the partition having a transparent plate fitted in an incident window corresponding to a light incident surface [Fig 12] a light outgoing window that emits the light flux modulated by at least one optical modulation device [Fig 12], a fan [Fig 12], a polarizer [Fig 12].

Art Unit: 2858

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 (amended) is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. in view of Hashizume et al. *5,518,834*
5,865,521

Regarding claim 5 (amended), the difference between Yamada et al. and the claimed invention is the antireflection film on the surface of the transparent plate. Hashizume et al. disclose an antireflection film [Fig 12]. *632* It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamada et al. to include the antireflection film as disclosed by Hashizume et al. The ordinary artisan would have been motivated to modify Yamada et al. as above for the purpose of eliminating reflections from the transparent plate.

4. Claims 3 and 10 (amended) are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. in view of Yamazaki et al. *5508834*
5212573

Regarding claims 3 and 10 (amended), the difference between Yamada et al. and the claimed invention is the transparent plate being treated for electrostatic protection. Yamazaki discloses a transparent substrate being electrostatically protected [Col 3, lines 1-35]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

Art Unit: 2858

modify Yamada et al to include the electrostatic protection as disclosed by Yamazaki et al. The ordinary artisan would have been motivated to modify Yamada et al as above for the purpose of protecting the optical modulator against excessive electrostatic voltage.

5. Claims 11 - 13 (amended) are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. in view of Fujimori et al. *5508834* *USPAT 5,868,485*

Regarding claims 11 - 13 (amended), the difference between Yamada et al. and the claimed invention is the mounting member, the color synthesizing prism, a fixed frame plate in contact with the color synthesizing prism and an intermediate frame plate. Fujimori et al. disclosea mounting member [Fig 5]a color synthesizing prism [Fig 5, #22]a fixed frame plate [Fig 5, #54] in contact with the color synthesizing prism [Fig 5, #22]an intermediate frame plate [Fig 5, #55]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamada et al to include the above components as taught by Fujimori et al. The ordinary artisan would have been motivated to modify Yamada et al. as above for the purpose of securing the transparent plate and the polarizer to the color synthesizing prism.

Regarding claim 12 (amended), Fujimori et al. disclose the mounting frame plate being made of resin [Col 10, line 15].

Regarding claim 13 (amended), Fujimori et al. disclose a metal mounting frame [Col 10, line 43].

Claim 17 (amended) is rejected under 35 U.S.C. 103(a) as being unpatentable over

~~Williams et al.~~ in view of Yamazaki et al. *5,212,573*

US PAT 6,007,205 to Fujimori

Art Unit: 2858

Regarding claim 17 (amended), the difference between Williams et al. and the claimed invention is the transparent plate being treated for electrostatic protection. Yamazaki discloses a transparent substrate being electrostatically protected [Col 3, lines 1-35]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Williams et al. to include the electrostatic protection as disclosed by Yamazaki et al. The ordinary artisan would have been motivated to modify Williams et al. as above for the purpose of protecting the optical modulator against excessive electrostatic voltage.

Claims 18 and 19 (new) are rejected under 35 U.S.C. 103(a) as being unpatentable over

5508834

Yamada et al. and further in view of Williams. 5260730

The examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art. Yamada et al and further in view of Williams disclose the claimed invention except for a power supply unit, an interface unit, a control circuit that controls the optical modulation element, an outer casing that accomodates the light source, the optical modulation element, the partition, the power supply unit, the interface unit, and the control circuit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the above components since it was known in the art that the above components are required for a conventional optical modulation element and projection display device. *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

Art Unit: 2858

Applicant may consider overcoming the above assertion of obviousness by demonstrating that provision of the above components achieves unexpected results relative to the prior art.

In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Furthermore, if Applicant has obtained unexpected results relative to the prior art, Applicant is required to show "that the difference in results is in fact unexpected and unobvious and of both statistical and practical significance." *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat App. & Inter, 1992)

Response to Arguments

6. Applicant's arguments filed in Amendment dated 1/8/01, Paper No. 17, have been fully considered and are countered as below.

Applicant states on page 2, "As agreed during the personal interview, Yamada does not disclose or suggest an optical modulation device, and a transparent plate formed on at least one surface of the optical modulation device, as recited in amended claim 1." Examiner respectfully suggests that there was miscommunication during the interview and Examiner wishes to correct the record as below. Yamada teaches an optical modulation device [Fig 5, 5] and in column 3 which is reproduced for applicant's convenience:

A preferred embodiment of the present invention will now be described with reference to the accompanying drawings. Fig 5 is a schematic cross-sectional view showing a liquid crystal display device in accordance with a first embodiment of the invention. The liquid crystal display device is of an active matrix type and a liquid crystal cell 1 is composed

Art Unit: 2858

of a TFT substrate 2 and a CF substrate 3. Both the substrates are bonded together by a sealant 4, and a liquid crystal layer 5 is held in a gap therebetween. Incidentally, it is apparent that the application of the present invention is not limited to the active matrix type liquid crystal display device but the invention may be applied to any other structure such as a simple matrix type LCD. A pair of transparent cover members 6 and 7 are mounted on outer surfaces of the liquid crystal cell 1."

Applicant states on page 2, "as agreed during the personal interview, Yamada does not disclose or even suggest a transparent plate formed on an optical modulation device.

Accordingly, claim 1 is not anticipated by Yamada." Examiner respectfully disagrees with supra statement that examiner agreed with applicant that Yamada does not teach a transparent plate. Examiner wished to correct the record as below. Yamada teaches a transparent plate [Fig 5, 6 and 7].

Applicant's arguments against the Williams prior art are moot based on new grounds of rejection.

Art Unit: 2858

Conclusion

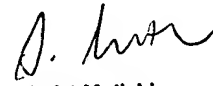
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne (Steve) LeRoux whose telephone number is (703) 305-0620.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached at (703) 308-1436.

Any inquiry of a general nature relating to the status of this application or processing procedure should be directed to the receptionist whose telephone number is (703) 308-0956.

Etienne LeRoux

January 25, 2001


Safet Metjahic
Supervisory Patent Examiner
Technology Center 2800